

THE PHENOLOGY OF SOME FRUITING AND FLOWERING PLANTS
IN A MID-ELEVATION WET FOREST ON MAUNA LOA*

C. John Ralph
Institute of Pacific Islands Forestry
U. S. Forest Service
Honolulu, Hawaii 96813

In order to assure their pollination and dissemination of seeds, fruiting and flowering plants are often said to compete for vertebrates' attention. It is our purpose to study the timing of these events in each species in relationship to other species and their environment, including their use by birds.

Contrary to some other reports, these plants are highly seasonal, producing fruits and flowers in a sequential array to the vertebrates of the area. Thus, fruits and nectar are available, albeit in varying amounts, for most of the year.

The year-to-year variation in timing of the peak of fruiting and flowering varies somewhat, possibly due to weather changes. However, the magnitude of fruit and flower production varies greatly between years. This is reflected in the birds' use of, and probable dependence upon, these energy sources.